

REMARKS:

The Office Action dated December 3, 2009, has been received and the following remarks form a full and complete response thereto. A Notice of Allowance is requested.

Interview Summary

During a telephone interview with Examiner Purdy on December 31, 2009, the rejection of claim 14 was discussed. Applicant's representative indicated that there was no basis for the rejection of claim 14 in the cited reference and no specific explanation for the rejection in the office action. Examiner Purdy indicated that claim 14 should have been withdrawn rather than rejected as being directed to nonelected subject matter.

Response to rejections under 35 U.S.C. § 103

Claims 1, 2, 11, and 14 were rejected under 35 U.S.C. § 103(a) as being obvious over Wachendorff-Neumann (U.S. 6,787,567). Per the interview summarized above, claim 14 should be considered withdrawn rather than rejected. The Examiner asserts that the claim language "comprising" does not exclude the methoximinoacetamide derivative of Wachendorff and that because Wachendorff discloses that prothioconazole and trifloxystrobin are both known fungicides, it would be prima facie obvious to combine these compounds. The Examiner also asserts that one of ordinary skill would have been motivated to use the mathematical formula in column 28 of Wachendorff to arrive at a mixture possessing synergistic effects.

Applicants submit that Wachendorff-Neumann only discloses that the combination of methoximinoacetamide derivatives of formula (I) and one of 58 listed fungicides may have synergistic effects. There is no disclosure in Wachendorff-Neumann that the combination of the presently claimed combination is synergistic. Moreover, there is no suggestion that anything other than combinations of methoximinoacetamide derivatives of formula (I) with fungicides would be synergistic. Wachendorff-Neumann only provides evidence that the combination of the compound of formula Ib and copper oxychloride has a synergistic effect (see Example, col. 29). Applicants submit that, taking into account only the knowledge which was within the level of ordinary skill in the art at the time the claimed invention was made, which is merely that combining methoximinoacetamide derivatives of formula (I) with a fungicide selected from the list in Wachendorff-Neumann *may* have synergism, did not suggest that the combination of prothioconazole and trifloxystrobin would indeed have a synergistic effect. Accordingly, because this knowledge could have only be gleaned from the Applicant's disclosure, Applicants submit that this rejection is based on improper hindsight reasoning as defined in MPEP § 2145 (X)(A).

Further, Applicants traverse the examiner's contention that it would have been obvious to test all of the known fungicides in Wachendorff-Neumann to arrive at the presently claimed synergistic combination. Applicants submit that such a test would have required thousands of combinations, each of which would have had to have been tested at a number of ratios, application rates, on numerous plants. Clearly one skilled in the art would not have been choosing from a finite number of identified, predictable solutions, with a reasonable expectation of success. Rather, one of ordinary skill would

have had to pursue an enormous number of false leads before arriving at the presently claimed combination. Thus, because Wachendorff-Neumann only suggests that the combination of methoximinoacetamide derivatives of formula (I) with some other fungicide may be synergistic, it would not have been "obvious to try" all of the combinations of fungicides in the list of 58 in Wachendorff-Neumann to arrive at the presently claimed combination. Applicants submit that such an undertaking would have required an unreasonable amount of experimentation falling outside of the scope of routine undertakings by one of ordinary skill.

MPEP § 2144 (I) requires that "[t]he rationale to modify or combine the prior art...may be expressly or impliedly contained in the prior art or it may be reasoned from knowledge generally available to one of ordinary skill in the art, established scientific principles, or legal precedent established by prior case law." Applicants submit that the rationale to modify Wachendorff-Neumann is not expressly or impliedly contained in Wachendorff-Neumann, available from knowledge generally available to one of ordinary skill in the art, established scientific principles, or legal precedent established by prior case law. Based on Wachendorff-Neumann, the only expectation of some advantage is suggested when one combines methoximinoacetamide derivatives of formula (I) with a fungicide. The only evidence is when methoximinoacetamide derivatives of formula (I) is combined with the compound of formula Ib and copper oxychloride. There is no suggestion of any advantage when combining prothioconazole and trifloxystrobin.

The present specification provides clear and convincing evidence of a synergistic effect when combining prothioconazole and trifloxystrobin. Assuming *arguendo* that the Office has established a *prima facie* case of obviousness for combining prothioconazole

and trifloxystrobin based on Wachendorff-Neumann, there is still no evidence suggesting that one of ordinary skill could have reasonably expected a synergistic fungicidal mixture when combining prothioconazole and trifloxystrobin. MPEP § 2145 requires that examiners weigh the proffered evidence and arguments and that substantial weight should be given to objective evidence of nonobviousness attributable to the claimed invention. Here, while the cited reference provides no evidence of an advantage to combining prothioconazole and trifloxystrobin, the instant application provides experimental evidence demonstrating synergism (see Table 2). Applicants submit that an objective weighing of the evidence would favor a showing of non-obviousness argued for herein.

Thus, Applicants submit that the cited reference does not render the presently claimed mixture obvious because it does not relate to a synergistic mixture comprising prothioconazole and trifloxystrobin, but rather it suggests combining methoximinoacetamide derivatives of formula (I) with another fungicide. Therefore, one of ordinary skill in the art reading Wachendorff-Neumann would not have found it obvious that the combination of prothioconazole and trifloxystrobin in a ratio of from 1:20 to 20:1 would be synergistic. Applicants respectfully request that the rejection claims 1, 2, and 11 be withdrawn.

Claim 15 was rejected under 35 U.S.C. § 103(a) as being obvious over Dutzmann et al. (WO 98/47367) evidenced by its English equivalent, U.S. 6,306,850 in view of Duvert et al. (WO 00/47047), evidenced by its English equivalent U.S. 6,797,301. The Examiner asserts that Dutzmann discloses combinations of prothioconazole (compound I) and azoxystrobin (compound XII) in Table 1, col. 25. The

Examiner asserts that Dutzmann shows a synergistic combination of prothioconazole and azoxystrobin. The Examiner acknowledges that Dutzmann does not disclose a composition consisting of prothioconazole and trifloxystrobin, but asserts that Duvert discloses that strobiluring fungicides like azoxystrobin and trifloxystrobin are functionally equivalent in their ability to inhibit mitochondrial respiration in fungi (col. 2, lines 25-35). Applicants respectfully disagree with the Examiner's assertions regarding the disclosure of Dutzmann because the efficacy of prothioconazole alone applied at 0.5 g/ha is 0% (col. 16) and the efficacy of azoxystrobin alone applied at 2.5 g/ha is 59% (col. 19). The combination of these compounds produces an efficacy of 59% according to Table 1, col. 25. Thus, there is no synergism exhibited in Table 1. Further the only other mention of combining azoxystrobin with prothioconazole is found in Example 4 of Dutzmann. Here, the combination of prothioconazole and azoxystrobin is reported to be 100% effective in protecting barley while the expected efficacy is 99%. Applicants submit that a 1% difference does not exhibit synergism, and when taking unavoidable experimental error into account, there is no difference at all between 99% and 100%. Thus, the experimental data in Dutzmann is evidence that there is no synergism when prothioconazole and azoxystrobin are combined. Therefore, because Dutzmann shows that the combination of prothioconazole and azoxystrobin is not synergistic, even if some kind of equivalence could be established between azoxystrobin and trifloxystrobin, it would not be obvious to one of ordinary skill that a mixture consisting of prothioconazole and trifloxystrobin would be synergistic.

The cited disclosure in Duvert states "[a]mong the fungicide compounds inhibiting mitochondrial respiration there may be mentioned, for example, strobilurin and

analogous compounds or derivatives, such as for example azoxystrobin, kresoxim-methyl, trifloxystrobin....” Thus, Duvert does not make any mention of functional equivalency, but merely lists azoxystrobin and trifloxystrobin as analog compounds or derivatives of strobilurin. However, even if one were to assume some kind of equivalency between these compounds, because Dutzmann shows that the combination of prothioconazole and azoxystrobin is not synergistic, it would not be obvious to one of ordinary skill that a mixture consisting of prothioconazole and trifloxystrobin would be synergistic.

According to MPEP § 2143.02, a “rationale to support a conclusion that a claim would have been obvious is that all the claimed elements were known in the prior art and one skilled in the art could have combined the elements as claimed by known methods with no change in their respective functions, and the combination would have yielded nothing more than predictable results to one of ordinary skill in the art.” Here, because the prior art provides experimental evidence showing a lack of synergism, Applicants submit that one of ordinary skill would not have had a reasonable expectation of success in making a synergistic mixture when combining the Dutzmann and Duvert references, and that the synergism is not a predictable result. Thus, based on the above reasoning, Applicants respectfully request that the rejection claim 15 be withdrawn.

Conclusions

In view of the above amendments and remarks hereto, Applicants believe that all of the Examiner's rejections set forth in the December 3, 2009 Office Action have been fully overcome and that the present claims fully satisfy the patent statutes. Applicants, therefore, believe that the application is in condition for allowance.

The Director is authorized to charge any fees or overpayment to Deposit Account No. 02-2135.

The Examiner is invited to telephone the undersigned if it is deemed to expedite allowance of the application.

Respectfully submitted,

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